# COST *and* MANAGEMENT

VOL. XXIV APRIL No. 4

WHAT IS A FAIR DAY'S WORK?
by George L. Dirks ..... 122

Mr. Dirks is a graduate of Michigan State University where he obtained his B.Sc. degree. He has served industry in various capacities, as foreman, production manager, chief industrial engineer and general superintendent, in such industries as steel, automotive, rubber, metal, chemical and aeronautic manufacturers. He is presently employed by Albert Ramond & Associates, New York City as a consulting industrial engineer, and he presented this paper to the Niagara Chapter.

PARALLELING OF SYSTEMS FOR AFFILIATED COMPANY ACCOUNTING
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Warren E. Bandel is company auditor for the Acme Iron Works of San Antonio and its affiliate companies. During the last war, he was employed by the U.S. Federal Government as an accountant-analyst. Mr. Bandel attended Duke University where he majored in economics and accounting. He completed his college training at the University of New Mexico, there he received his B.A. degree. He is a member of the National Association of Cost Accountants and through their kind co-operation, Mr. Bandel's article is made available to Cost and Management.

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# SOCIETY NOTES

## COST AND MANAGEMENT CONFERENCE NEWS

We welcome the opportunity of presenting in this issue of Cost and Management the programme for the 29th Annual Cost and Management Conference, which has just been announced by the Conference Committee. The degree of enthusiasm with which the programme has been received by those who have had an opportunity of receiving it, augurs well for its success. The following is the calendar of events:

**THURSDAY, JUNE 22nd**

| | |
|---|---|
| 9.00 - 12.00 Noon | Registration.<br>Meeting of Dominion Board of Directors. |
| 12.30 - 3.00 p.m. | Luncheon—Ontario Annual Meeting. |
| 3.15 - 5.00 p.m. | Technical Sessions.<br>Theme: SIMPLIFYING YOUR RECORDS.<br>Chairman—Geo. K. Hutchings, C.A.<br>Subject: Acquiring the Facts, James J. MacDonnell, C.A., Manager, Systems and Methods Department, Price Waterhouse & Co.<br>Subject: Use of the Facts, J. M. Thompson, C.A., Comptroller, Canadian Westinghouse Co. Ltd. |
| 6.30 p.m. | Annual Dinner—Society of Industrial and Cost Accountants of Ontario.<br>Speaker: E. G. Burgess, Vice-President, Massey-Harris Co. Ltd., Toronto, Ontario. |
| 8.00 p.m. | Meeting of Ontario Council. |

**FRIDAY, JUNE 23rd**

| | |
|---|---|
| 9.30 - 12.30 p.m. | Technical Sessions.<br>Theme: CHARTING A COURSE THROUGH A RECESSION. |

Chairman—John H. Reid, C.A.
Subject: What Do Distribution Costs Cost You?
Cecil B. Taylor, R.I.A., Cost Consultant, Toronto, Ontario.
Panel Discussion.

12.30 - 3.00 p.m. Luncheon—Dominion Annual Meeting, S.I.C.A. of Canada.

3.15 - 5.00 p.m. Technical Sessions.
Chairman—E. W. Scott, R.I.A.
Subject: Have We Neglected Psychology in our Business Relations?
E. E. Sparrow, Chairman, Workman's Compensation Board of Ontario.
Subject: Making Statistics Talk,
W. C. Flaherty, Chief Statistician, Chrysler Corporation, Detroit, Michigan.

6.30 p.m. Annual Dinner.
Speaker: J. Lance Rumble, General Motors Retail Truck Branch, General Motors of Canada.
Floor Show featuring Canadian artists, including Miss Margaret Lynne Munn, Miss Canada 1949 and Miss North America 1949.
Dancing—Sonny Duncan and his orchestra.

**SATURDAY, JUNE 24th**

9.00 a.m. Meeting of Dominion Board of Directors.
Tour to Niagara Falls—Leaving Toronto at 9.00 a.m. and 2.00 p.m.

**AND FOR THE LADIES**

Thursday Afternoon A visit to the Dale Estate, the house of the famous roses.
Friday Afternoon A Conducted Tour and Afternoon Tea.

**REGISTRATION FEES**

**(including Luncheon and Dinner, Thursday and Friday)**

Complete Registration—Members, $18.00 per person.
Complete Registration—Non-members, $19.00 per person.
Complete Registration—Ladies, $14.00 per person.

INDIVIDUAL FUNCTIONS (in lieu of full registration)

Thursday Luncheon—$2.50 per person.
Thursday Dinner and Reception—$4.00 per person.
Friday Luncheon—$2.50 per person.
Friday Dinner and Dance—$5.00 per person.
Technical Sessions—$2.50 per day, per person.

There's the picture of what you may expect in Toronto in June. If there is information you wish, that is not included in the above listing, please contact your chapter Conference Publicity Man. He'll be glad to find out for you. It won't be long till June is upon us—so register to-day—don't delay. You can't afford to miss Toronto in '50.

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# New Members

## CALGARY CHAPTER

J. F. Abercrombie, Western Leaseholds Limited
J. Armstrong, Royalite Oil Company Limited, Turner Valley
E. R. Beatty, Hammond Bedding (Alta.) Co. Ltd.
D. W. Bedford, Department of National Revenue, Income Tax Div.
P. A. Bishop, The Calgary Herald
W. R. Boswell, Pacific Petroleums Limited
C. W. Burrows, Royalite Oil Company Limited, Turner Valley
R. V. D'Eath, McColl-Frontenac Oil Co. Ltd.
R. L. Doddridge, Pacific Petroleums Limited
E. E. Dodd, United Grain Growers Limited
B. Freeborn, Royalite Oil Company Limited, Turner Valley
R. M. Grant, Burns and Company Limited
D. K. Hall, Pacific Petroleums Limited
Miss Helen Himmelspach, Stewart Lovick Limited
H. Johnston, Alberta Wheat Pool
J. D. Layden, Calgary Board of Trade
W. E. Maberley, Farm Electric Services Limited
Mrs. Patricia Marshall, Pacific Petroleums Limited
C. H. Meyer, Husky Oil & Refining Limited
M. H. Miller, Motor Car Supply Company of Canada Ltd.
H. J. Neufeld, General Petroleums Limited
D. F. Papworth, McColl-Frontenac Oil Co. Ltd.
Miss Lorna L. Park, Department of National Revenue, Income Tax Div.
S. J. Pettigrew, James Richardson and Sons Limited
C. H. Prescott, Perkins and Evans Lumber Co. Ltd.
A. Renne, Central Alberta Sanitorium

J. A. Scotland, Revelstoke Sawmill Company Ltd.
K. A. Simpson, Hudson's Bay Company
Adrian Smith, Crown Lumber Company Limited
R. J. Smith, Department of National Revenue, Income Tax Div.
R. S. Smith, Husky Oil and Refining Limited
J. F. Tarrant, Canadian Western Natural Gas Company Limited
D. S. Thomson, Beach Foundry Limited
F. J. Wager, Robin Hood Flour Mills Limited
J. E. Whitaker, Farm Electric Services Limited
G. Wright, Husky Oil and Refining Limited
G. Wishart, Burns and Company Limited

## EASTERN TOWNSHIPS CHAPTER

L. S. Allan, Carnation Co. Ltd., Sherbrooke, Que.
J. R. Lunan, Canadian Johns Manville Co. Ltd., Asbestos, Que.

## EDMONTON CHAPTER

R. T. Fath, Sparling-Davis Company Limited
M. Ozdoba, The Imperial Pipe Line Co. Ltd.
E. D. C. Thomson, Hudson's Bay Company
H. H. Watson, Department of Transport
Mrs. M. M. Airth, 14 Merrick Bldg.
P. Melnyk, Atlas Lumber Company Limited
C. W. Anderson, Department of National Revenue, Income Tax Div.
R. J. Arcand, Department of National Revenue, Income Tax Div.
Miss D. Atkinson, Sunwapta Broadcasting Co. Ltd.
J. H. Clissold, J. W. Mould and Son Limited
D. O. Evans, Royal Trust Company
R. E. Fraser, Canadian Utilities Limited
Mrs. G. M. Godson, Metropolitan Printing Company Ltd.
J. A. Hanna, Texaco Exploration Company
A. A. Hauck, Fuller and Knowles Co. Limited
G. O. Hazlett, Horne and Pitfield Limited
B. D. Howard, Canadian Utilities Limited
W. Hoysack, Department of National Revenue, Income Tax Div.
Ian Jamieson, Northwestern Utilities Limited
R. H. LeMasurier, Imperial Oil Limited
D. L. MacDonald, Edmonton Transit System
W. D. MacKay, Housez Limited
A. A. Marr, Chicago Vocational Training Corp. Ltd.
R. B. Marshall, Edmonton Transit System
C. V. McDonald, Canadian Co-Operative Implements
A. M. McNeil, Alberta Blue Cross Plan
R. G. Miller, Maurice Roy Agencies
H. Muncaster, Gaults Alberta Limited
H. C. Murphy, Provincial Mental Institute
A. Reinholz, Burroughs Adding Machine Company
W. N. Richards, Provincial Government, Dept. of Public Welfare
G. J. Robertson, Imperial Oil Limited

G. G. Shove, Provincial Government, Department of Public Welfare
M. F. Sikal, Department of National Revenue, Income Tax Div.
Miss E. W. Topolnisky, Merco Wholesale Limited
G. E. Ward, T. Eaton Company Limited
J. T. Ward, Jr., The Carter Oil Company
W. L. Zaparyniuk, University of Alberta

**HAMILTON CHAPTER**

James McAlley, National Steel Car Corp. Ltd.
Fred Rowley, National Steel Car Corp. Ltd.
A. Allan Woodward, The Eaton Knitting Co. Ltd.

**LETHBRIDGE CHAPTER**

R. J. Sheppard, H. M. Trimble and Sons

**MONTREAL CHAPTER**

J. P. L. Benoit, McDonald Currie & Co.
J. P. Cardella, Canadian Industries Ltd.
F. J. Dawe, Canadian Super-Cold Ltd.
R. E. Eakins, Dominion Burlington Mills Ltd.
W. F. Joeck, 2052 St. Catherine St. W.
P. F. Limoges, Industrial Development Bank
Miss Marielle Locas, William Dow & Co.
Oscar Morsten, Canadian Super-Cold Ltd.
S. M. Reinblatt, Dobrin, Dainow and Simkover
G. H. Stevens, Northern Electric Co. Ltd.
R. P. Stevens, Dominion Tar & Chemical Co. Ltd.
D. Volpe, National Breweries Ltd.

**OTTAWA CHAPTER**

D. R. Hutton, The E. B. Eddy Company, Hull, Que.
C. F. Hembery,. The Ontario Hughes Owens Company Limited

**REGINA - MOOSE JAW CHAPTER**

E. J. Harris, Robert Simpson Western Ltd.

**SASKATOON CHAPTER**

Robert Dunbar, Hudson's Bay Company

**VANCOUVER CHAPTER**

S. Feldman, B.C. Electric Railway Co. Ltd.

**VICTORIA CHAPTER**

E. J. Emerson, Nanaimo Sulphate Pulp Ltd., Nanaimo, B.C.

**WINDSOR CHAPTER**

B. B. Blundell, Canadian Automotive Trim Limited
W. E. Baker, Chrysler Corporation of Canada Ltd.

**WINNIPEG CHAPTER**

D. T. Anderson, 23 Emily Street
J. R. Barrick, 1126 Sommerville Avenue, Fort Garry
F. St. John Bennett, 297 Renfrew Street
W. Blenkarn, 350 Beverley Street
Wm. R. Burnett, 247 King Edward Street

## NEW MEMBERS

G. C. L. Butler, 180 Lyle St., St. James
C. B. Clark, 67 Clonard Avenue, St. Vital
G. Clark, 285 Kilbride Avenue, West Kildonan
N. E. Coley, 375 Oak Street
K. E. Cory, 666 Garfield Street
Allan Dryburgh, 620 Anderson Avenue
Morley Golden, 391 Elm Street
Lloyd F. Goodman, Ste. 29, Whitehall Apts.
Louis Gordon, 174 Alfred Avenue
Robert A. Hamlin, 368 Centennial Street
Geo. A. Heaton, 929 Mulvey Avenue
Miss Edna Henderson, 21 Monterey Apts.
A. A. Hewitt, 134 Monck Avenue
W. B. Iwankow, 35 Oakview Avenue, East Kildonan
Norman R. Jones, 111 Monck Avenue, Norwood
J. Jorundson, 222 Young Street
Gordon C. Keatch, 427 Lipton Street
Charles R. Kelpin, Ste. 15, Lincoln Apts.
Anthony G. Kerr, 352 Bartlett Avenue
Maurice Kushner, Ste. 5, Westmount Apts.
John Lawrie, 213 Wildwood Park, Fort Garry
Alex C. H. Lyons, 550 Rathgar Avenue
Miss Jessie M. Lyons, 875 Home Street
Wm. D. Mason, 656 Valour Road
Lawrence J. Mathew, 411 Scotia Street
Robert J. McBey, Ste. 7, Winnitoba Apts.
Wm. A. McNair, 115 Essex Avenue, St. Vital
J. G. Montgomery, 396 Marjorie Street, St. James
Leo. Nyznyk, 91 Hallett Street
C. L. Phaneuf, 563 Des Meurons Street
Z. Pinsk, 524 Mountain Avenue
H. H. Reilly, Varsity View P.O.
P. D. Rempel, 359 Kennedy Street
Wm. Serhan, 393 Portage Avenue
D. R. Spence, 209 Claremont Avenue
E. S. Tysarski, 154 Polson Avenue
J. A. Vodrey, 37 Arlington Street
Rudy G. Warkentin, 179 Green Avenue
Eric Williams, 414 Polson Avenue

## NON-RESIDENT B.C. SOCIETY

W. C. Goresky, William Waldie & Sons Ltd., Castlegar, B.C.
J. E. Cook, Albert & McCaffery Ltd., Prince Rupert, B.C.

## NON-RESIDENT ONTARIO SOCIETY

R. W. Skeat, Moncton Hospital, Moncton, N.B.

## NON-RESIDENT CANADIAN SOCIETY

Frank F. Berger, 12 Duke St., St. James, S.W. 1, England

# Chapter Notes

## BAY OF QUINTE

The March meeting of the Chapter was held in the Shrine Club and was the occasion of the Annual Student's Night. Art Lockely, Chairman of the Student Group, outlined the Quiz Program prepared for the evening. This proved to be a welcome change from the usual type of meeting and thoroughly enjoyed by those in attendance.

## HAMILTON CHAPTER

J. G. Glassco, a senior partner in the firm of Clarkson, Gordon & Co., chartered accountants, Toronto, was the guest speaker at the regular monthly meeting of the Hamilton Chapter, held at the Royal Connaught Hotel, on March 16, 1950.

The speaker, an expert in the accounting and taxation fields, spoke on the recent changes in the Income Tax Act. He dealt especially with the new depreciation or capital cost allowance sections of the Act.

Mr. Glassco was introduced by H. C. Dixon, and thanked by J. Farnworth.

Members of the Kitchener Chapter were guests at one of the largest turn-outs of the season.

## KITCHENER

Directors for the 1950-51 term were selected at the March meeting of Kitchener Chapter, Ontario Society of Industrial and Cost Accountants, in Galt, March 22nd, 1950. Chairman Francis Frank, of Preston, presided.

J. F. Kidner, of the Canadian Oil Co. Ltd., Toronto, was guest speaker, with the subject "Taking the Cents Out of the Balance Sheet", and some trends in Accounting. He was introduced by C. R. Kidner, of Preston, and thanked by Hugh McDairmid, of Galt.

V. M. Buchanan, of Kitchener, was Chairman of the Nominating Committee, which consisted of L. Hope, Kitchener; F. Frank, W. Jardine, and H. G. Stockfish, of Preston.

The new Directors, who will meet at a later date to elect their officers, are as follows: James Babcock, Carl Dorschell, H. McDairmid, R. Harrison, of Galt; R. Roy, J. C. Gross, J. Clendenen, of Guelph; W. J. Ruby, of Kitchener; J. K. Watson, of Fergus; F. Frank, Alfred Pautler, of Preston.

## NIAGARA

The Niagara Chapter held their March meeting in Thorold, when Mr. W. R. Kay, C.A., of Toronto, spoke on the regulations governing the depreciation allowances under the new income tax act.

Mr. Kay pointed out that Great Britain discarded the diminishing balance method of depreciation and reverted to the straight line method. The speaker referred to the Finance Minister's remarks to the effect that the new regulations were becoming more of the accountant's and less of the lawyer's problem for administration.

## OTTAWA

Over forty members and guests attended the March meeting of the Ottawa Chapter of the Society of Industrial and Cost Accountants of Ontario, held at the Alexandra Hotel on March 16, 1950. The guest speaker, Mr. F. R. Manuel, Vice-President of Stevenson and Kellogg Limited, Toronto, who spoke on "Job Evaluation", was introduced by Mr. D. R. Hutton, of E. B. Eddy Company Limited, and thanked by Mr. Morris Fidler, of Civil Service Commission.

Mr. Manuel's high recommendation by sister chapters of the Society was endorsed by all those present.

Mr. Cecil Wolff, secretary of the Ottawa Chapter, introduced two new members, Mr. D. R. Hutton, of E. B. Eddy Company Limited, and Mr. C. F. Hembery, of Ontario Hughes-Owens Company Limited.

Plans are being made for the joint meeting with the Montreal Chapter to be held at the Seigniory Club in May.

## QUEBEC CHAPTER

The regular monthly meeting was held at Le Cercle Universitaire de Laval on Wednesday evening, March 22nd, 1950.

About 75 members including some students of l'Ecole Universitaire de Commerce who will be new members of our Chapter in a few days, joined together to meet the President of the Dominion body, Mr. Charles P. Dumas, M.C.I., R.I.A., of Montreal, on his official visit to the Quebec Chapter.

He was introduced by Mr. R. S. Langlois, president of Quebec Chapter and thanked by Mr. Dominique Bertrand, R.I.A.

A "forum" on Industrial Legislation and Industrial Organization and Management was held at the same time under the presidency of Mr. Robert Despres. Mr. Edouard Laurent, of the Department of the Provincial Treasurer and Mr. Maurice Godbout, R.I.A., manager of Dominion Corset Ltd., answered many questions, particularly on production control, profit sharing, labor unions, labor agreements, unemployment insurance, health insurance, perpetual inventory, selection and training of employees, job evaluation, etc.

## REGINA - MOOSE JAW

The February meeting was held jointly with the National Office Management Association in Regina. W. Gibbon Smith, C.A., R.I.A., gave a most informative talk on the New Income Tax Regulations making particular reference to those regulations affecting depreciation allowances.

Mr. Harvey Marshall, Chairman of the Regina Chapter of N.O.M.A., was in the chair.

## REGINA - MOOSE JAW

The Chapter met on March 9th in the Grant Hall Hotel, Moose Jaw. Mr. Walter Read introduced the speaker, Mr. Frank Capithorne, C.A., Controller of the Saskatchewan Power Commission. Mr. Capithorne spoke on the subject, "Practical Business Administration in Relation to Personnel". The address created a spirited discussion period and a hearty vote of thanks was expressed by Mr. Kennedy.

## SASKATOON

Our February meeting was held on Monday, February 20th, at the University of Saskatchewan. Professor O. W. Main addressed the members, and his subject was "The Social Aspect of Business Management".

The speaker was introduced by J. Thompson, Dean of the College of Commerce, and was thanked by the Chairman, E. T. Mowbrey.

The March 20th meeting was chaired by Mr. E. T. Mowbrey, and our speaker was Mr. R. W. Allan, Personnel Manager of Saskatchewan Federated Co-operatives. Mr. Allan addressed the members on Job Analysis and Job Evaluation.

Mr. Allan demonstrated the value of Job Evaluation programmes, by showing a chart which illustrated the salary and job structure of Saskatchewan Federated Co-operatives before analysis, and after the job was completed. During the discussion period, Mr. Allan ably answered the questions asked by the various members, and Mr. H. Butler moved a vote of thanks and appreciation of Mr. Allan's efforts.

## ST. MAURICE VALLEY

The monthly meeting of the St. Maurice Valley Capter was held at the Cascade Inn, Shawinigan Falls, Que., on Wednesday, March 15th. The chapter was honoured by the visit of National President Charles P. Dumas, of Montreal and Lieut.-Col. Loggis, of Canadian Ingersoll-Rand Co. of Sherbroooke, Que., who gave an illuminating talk on job evaluation. Job evaluation is part of industrial management and is an important aspect of good industrial relations. It was brought to industry when wage negotiations had to be faced. This system makes possible a rate of pay that can be compared with what is paid in neighbour industries. It makes it impossible for the superintendent to favour anybody or any friend as he knows nothing will justify his doing so in paying a man more than he is worth. Job evaluation constitutes a very efficient instrument for industrial leaders.

The speaker was introduced by Dr. C. N. Crutchfield and President Don Peddy thanked him.

## TORONTO

The March meeting of the Toronto Chapter was held in the Oak Room, Union Station, on the 9th of the month.

There were approximately 125 members present and we were fortunate in having Mr. J. Grant Glassco, F.C.A., R.I.A., a senior partner of Clarkson, Gordon and Company as a guest speaker.

Mr. Glassco is recognized throughout Canada as an outstanding accountant and as an authority in the field of Income Tax. His subject, "Depreciation and Other Changes in the Income Tax Act 1949", was very timely and well received as indicated by the interesting and instructive discussion period which followed the address.

## VANCOUVER

On March 9th, the Chapter met in the Hotel Georgia, to hear Mr. L. G. Groom, M.C.I., Assistant Credit Manager of Imperial Oil Ltd., give a very interesting talk on the subject, "What Costs Mean to the Credit Manager." A lively discussion followed the address, with most of the fifty people present participating.

# Current Literature Digest

**By W. W. HENDERSON, R.I.A.**

**COSTING IN THE FOOTWEAR INDUSTRY, by B. Manchevsky, B.Comm., A.A.C.A.A., A.C.I.S.—Cost Accountant (of London, England), February 1950.**

This article describes methods of cost accounting practised with regard to the Shoe industry in South Africa. Standard Costs are used. The method of routing orders is fully described—work tickets containing full particulars are issued to which are attached strips identified by the work ticket number. The work ticket accompanies the physical job itself throughout the different departments through which it is routed. A strip is detached after a department finishes its work on the job, this strip going to the factory office. Production control is thereby facilitated.

A periodic Profit and Loss Statement is issued, its compilation being relatively simple. From Sales Value is deducted the standard cost of goods sold. The resultant figure is decreased or increased by the net composite variance amount, depending upon whether the variance total is debit or credit in character. From the residual figure are deducted commercial expenses, leaving the net profit amount.

**CONTROL AND AUDIT OF PLANT EQUIPMENT, by Frederick Ebel—The Internal Auditor, March 1950.**

Suggested treatment of plant equipment with respect to internal control is given in this article.

The author is Assistant Vice-President of a large U.S. Appraisal Company and he evidences real concern about the precautionary lack which exists so often with respect to plant property conservation. He suggests that internal audit methods should be applied in verifying and safeguarding values for such property. Specific accounting records are suggested. Mention is made of methods of treating capital additions. The author disagrees with the idea of expensing all items below a certain cost, as a flat principle—instead he recommends no specific limit but the exercise of judgment in decision. The costs of replacement are rehabilitation he says should be capitalized.

Mr. Ebel stresses that a physical verification of plant equipment's existence should be made.

Depreciation of plant equipment comes in for special mention. Mr. Ebel says: "It seems so easy—control is lost.

The article ends on the note now heard so often—provision for replacement of equipment at higher values than total depreciation reserves in the matter of working capital. However, the author acknowledges that the problem is financial rather than an Accounting one.

**ASSEMBLING AND REPORTING EMPLOYEE SERVICE DATA FOR ACTUARIAL USE IN DEVISING A PENSION PLAN, by Norman F. Gount—N.A.C.A. Bulletin, Section 1, February 1950.**

The title of this article is largely self-explanatory. Requirements will vary somewhat depending upon industry, insurance company, and for pension plan considered. The article deals with methods of employing punch card equipment in facilitating and expediting assembly of information normally requested.

**A LONG STEP BACKWARDS: DIMINISHING BALANCE DEPRECIATION, by Kenneth F. Byrd, M.A., B.Sc.(Econ.), A.C.A.—The Canadian Chartered Accountant, February 1950.**

Prof. Byrd certainly is unsympathetic to the Diminishing Balance Method of Depreciation. However, it is not a statement of opinion unsubstantiated with facts.

The author relates that this method which had been very much used in Britain was now largely without supporters there.

Prof. Byrd presents a table showing Depreciation on 3 bases:—

(1) What this reviewer shall term "true depreciation"

(2) straight line

(3) Diminishing Balance

Divergencies of the Diminishing Balance Method from "true" depreciation add up to $5,678 on a depreciable asset value of $10,000.00 as against $996.00 with respect to the straight line method. Furthermore the rate has to be very high to fully depreciate an asset in a term of 10 years —a very normal period of useful asset employment. On the other hand a low rate tends to leave non asset a/c not real value but deferred depreciation.

The author concludes: "Let her (Canada) give hold to the experience of those who have learned that the 'lazy accountant's friend' is a wolf in sheep's clothing."

**HOW TO PROMOTE MORE EFFECTIVE SUPERVISION THROUGH SUPERVISORS' INCENTIVE PLANS, by John J. Plocar—The Controller, February 1950.**

The article deals in detail with the manner of setting up an incentive plan for supervisors.

Flexible Budgets form the basis in the matter of commercial or Factory overhead—a per cent of a credit variance is paid the supervisor. However, each type of such expense is separately evaluated as to the per cent of credit variance to allow as reward.

Penalties are accumulated over a month, and are deducted from rewards—never from base pay. A share in direct labour and direct material usage credit variances is permitted supervisors. Dept. and over-all plant production targets when exceeded produce another source of incentive income to supervisory staff concerned.

This article is most informative, but it contains too much real substance to outline even sketchily within the perimeter of this abridgement.

**A FAIR DAY'S WORK, by Dennett F. Howe, in "Competition, The Challenge of the '50's" (Reporth of Annual Fall Conference of the Society for Advancement of Management).**

The remarks contributed by Mr. Howe preceded the showing of a film issued by his principals, the Procter & Gamble Co. The film itself deals with the measurement of work, and others like it represent to his Company a Bureau of Standards. They are circulated periodically among experienced

Time Study Men of the Company as well as among its initiates—thus creating a more uniform method of applying and interpreting time studies.

Mr. Howe explains the human relation angle as practised by his Company, in the applications of standards. No effort is spared in informing the workman (and if necessary, the union) how the standard is arrived at. They want the workman to wholly realize the fairness of it.

Too, mention is made of the necessity of keeping standards fully up to date in the light of changing methods or circumstances.

**HOW STANDARD COSTS ARE BEING USED TO-DAY FOR CONTROL, BUDGETARY, PRICING: A SURVEY, by Walter B. McFarland—The Journal of Accountancy, February 1950.**

This is a most comprehensive treatment of standard costs. It is not the views of one man, but the composite one resulting from an extensive survey. As a result the reader is exposed to more than one opinion and his perspective probably will be enhanced materially because of it, nevertheless—no great divergence of views seem to be recorded.

The importance of correct standard costs is made apparent when their contribution to inventory valuation and pricing is considered.

Standard Costs assist greatly in developing budgetary control, because a forecast of Cost of Goods Sold may be made, which when applied to Sales results in a "target" gross Profit. The rest of the forecasted Profit and Loss account, together with predicted balance sheet becomes fairly obvious to the average Cost Accountant. This function of standard costs is emphasized in the article.

## OTHER ARTICLES OF INTEREST

**Semi-Variable Costs as a Pricing Aid When Prices and Volume are Declining,**
by Clinton W. Bennett—The Journal of Accountancy, March 1950.

**Profit Control by Territories and Products in the Food Processing Industry,**
by Granville F. Atkinson—N.A.C.A. Bulletin, March 1950.

**Participation and Premium Cost Records for a Pension Trust Purchasing Retirement Income Insurance,**
by John W. Flory—N.A.C.A. Bulletin, March 1950.

**Accumulating Information and Installing Records for a Contributory Pension Plan,**
by Linda Stanford—N.A.C.A. Bulletin, March 1950.

**Seven Aids to Better Control Reports,**
A Case Study, by S. Payson Hall—N.A.C.A. Bulletin, March 1950.

**Cost Control in Practice,**
by C. G. S. Jennings, F.C.W.A.—The Cost Accountant, March 1950.

**Can Earned Surplus Be Interpreted, Analyzed and Presented Logically?**
by John A. Beckett—The Controller, March 1950

**Payroll Procedures,**
by R. L. B. Joynet—The Canadian Chartered Accountant, March 1950.

**Order and Invoicing Procedure,**
by R. A. Hicks—The Canadian Chartered Accountant, March 1950.

**The Source and Application of Funds Statement,**
by J. D. Campbell—The Canadian Chartered Accountant, March 1950.

# C. and M. Round-Up

By NORMAN R. BARFOOT, R.I.A.

## THE ACCOUNTANT AND LABOUR NEGOTIATIONS

Until recently, the part that accounting has played in shaping the trend of union-management relations has been minor.

The unions have struggled for recognition, as official bargaining agents, for closed shop and check-off. Both labour and management have hammered out better methods of mediation and arbitration. There was also a money slant to this organizational phase, but it was not nearly as important as that which affects the economics of industry in 1950.

Further rounds of wage increases seem inevitable and fully financed company pensions are apparently in the offing.

The recent strikes in the United States have shown to no little degree the important part that accountancy is playing in wage and pension disputes. The reports on the negotiations were filled with economic data and accounting parlance. Good accounting service is being utilized by labour and management.

The phrase, ability to pay, is the one most often applied by conciliation boards and to give it proper effect, conciliation officers may, under the Canadian Labour Code, cause companies to disclose their financial status.

Here the accountant definitely takes a chair at the union-management conference. The emphasis to-day, as all accountants are aware, is not as much upon present financial health as upon future earning power, and certainly wages and pensions bargained for to-day must be found from to-morrow's income. Accountants must and can only advise management and labour to think in terms of future ability to pay and not past ability to pay.

Another aspect for accountants to think about is the form in which company finances will be presented at union-company round tables. It is true that management or labour must decide how much or how little is given in the way of financial facts by their representatives, but here is another application for simplifying the statement of income and expense. How many of the laity really appreciate that depreciation is a current expense, as real as that of wages or materials, or that certain provisions for the future are a proper charge against to-day's operations.

Canadian accountants will be called upon more and more to give financial evidence for management in union and company controversies. Labour itself will also use the special knowledge of accounting and cost accounting as it is related to factory economics in order to support its claims. The important thing is that accountancy be prepared to tell its story, explain the details in understandable language and to give sound advice. In other words, gear themselves to do a good job.

## CAPITAL EXPENDITURES IN 1950

Of general interest to all accountants is the programme of capital expenditure planned in Canada for 1950.

The estimated amount of 3.6 billion dollars for the current year is an increase of 5% from the high of 3.45 billion in 1949. It is true that the purchasing power of the dollar has declined considerably since 1939 and has made construction, new plant and equipment more expensive, but the sheer size of the proposed monetary outlay is a very healthy economic sign for the year ahead.

For purposes of comparison, 12.4 billion dollars is the estimate of new money spending for the United States. This is a drop of 17½% from the high of 15 billion in 1948.

Following the pattern of 1949, a breakdown on Canadian capital expenditures would indicate that new construction will take about 1.2 billion, government investment about .5 billion and the balance in equipment, etc.

It is not difficult to assess how the list of purchases for industry will look.

Number one will be new production and processing equipment. The downward trend of corporate profits in 1949 plus further rounds of wage increases has probably influenced the thinking of top management in exploring every avenue of cost reduction and hence a lower unit cost is sought through the installation of more efficient equipment.

Second on the shopping list would be the purchase of material handling equipment. The old bugbear of so many industries, high handling costs, will undoubtedly receive a major share in the 1950 expansion programme—and rightly so. The savings made so carefully in actual production processes are very often thrown away in the warehouse.

The sources of this new money, particularly with regard to its use by industry, should be rather interesting. There are obviously two sources, new stock issues or internal corporation funds in the form of depreciation reserves or retained surplus earnings. An examination of the statistical summary from the Bank of Canada shows that new issues of corporation stock and bonds has been declining since 1948, so that a greater part of this new money will be coming from the above-mentioned internal sources. This indicates, first of all, good reserves and, generally speaking, excellent working capital position or, in other words, most of the large corporations are in a very healthy financial condition. Secondly, since they are willing to spend such sums in anticipation of future returns, there is apparently no fear of the immediate economic scene on the part of Canadian management. The Statistical Branch at Ottawa shows that there is still approximately 175 million dollars in refundable portions of Excise Profits Tax due to Canadian corporations. This no doubt strengthens the thinking of Canadian management in making the large outlays they will be making in 1950.

## A PATTERN OF THINKING FOR ACCOUNTANTS

Professor Leo Schmidt from the School of Business Administration of the University of Michigan has given in four steps a model for accounting

thinking. This four-point charter of logic should be engraved on the desk of every controller, chief accountant and chief cost accountant.

It is a guide to constructive thinking which may be used in every problem which faces the executive accountant.

The points are:

(a) Consider all the figures produced by our routine accounting system under debit and credit controls which may bear upon the decision to be made.

(b) Consider all refinements or revisions or adjustments necessary to make routine accounting figures truly applicable to the particular decision to be made.

(c) Consider all available figure facts from outside the accounting system which can be brought to bear upon the decision to be made.

(d) Consider all non-figure facts which bear upon the decision to be made.

The first two points will probably get a reasonable degree of usage in the thinking that accountants do about problems that are presented to them. Income statements, balance sheets and, if necessary, supporting records will be scanned quite thoroughly in order to build up the case for or against any proposition that has been brought up for consideration. In addition, most chiefs of accounting divisions will attempt to weed out or adjust figures compiled during unusual and exceptional situations. In other words, an attempt will be made to cancel out the untoward effects of irregular circumstances and get the figures back to representative statements.

I am sure the last two points are used much less and sometimes left out of the pattern of accounting thinking entirely. This may be due to ignorance of their influence or a high disregard for their use by accountants.

There are large areas of available figure facts not under the control of the mechanics of conventional accounting which should be used by accountants. Let us think about the endless string of statistical facts about any one industry. Think of the figure facts in personnel records, in machinery equipment and plant records and more important to Cost Accountants, production statistics of all kinds. How would burden ever be applied without statistical records of man hours, machine hours, etc.?

Most large firms employ professional statisticians and the results of their work may be used by the accountant. However, smaller corporations depend almost entirely on the local economist and figure collector, namely, the accountant, for this information.

Non-figure facts are also of importance. There are dealings with personnel, high and low at all times and the influence of this factor on decisions must be considered or the accountant is not being realistic in his thinking. The timing of certain financial action may well be determined by the current temper of company and union relationship. The manager of the bank with which you presently do business in an unsatisfactory way may be a personal friend of the president of your company. Perhaps your first thought of changing banks should be thought about very carefully. These non-figure facts are often unpleasant and may not be the deciding factor in a decision, but they cannot be ignored.

It is well worth-while for accountants to remember and to use these four avenues of approach to their problems.

## RAILWAY ACCOUNTING

The Royal Commission on Transportation for rail freight rates has, as part of its investigation, brought out some interesting slants on Canadian Railway accounting practices.

Depreciation has been a major subject of controversy in comparing the respective accounting systems of the two roads.

The C.N.R. has been using the orthodox straight-line method in writing down its rolling stock asset. The current system of depreciation apportionment by the C.P.R. is the "user" method.

The "user" form of depreciation according to C.P.R. experts is particularly applicable for rail operations in that depreciation varies according to the volume of operations.

To a degree, this method is comparable to accelerated rates in industry. It seems logical that depreciation charges on the cost of current operations should increase as more car miles are put on the rolling stock. However, this means that as business increases, depreciation increases and probably, as with any machinery, as it is worked longer and harder, maintenance will go up.

It seems that this method is almost exactly opposite in theory to that of diminishing balance depreciation method which tends to level off the combined costs of depreciation and maintenance annually. All other things being equal, the "user" method would have a tendency to stabilize net returns in that both depreciation and maintenance would be high in years of great volume of business.

Another subject of interest has been the recent plan submitted by the president of the C.N.R. to cure the road's capital debt headache.

Interest-bearing bonds to the value of 760 million would be made into equity capital or common stock. Since earnings are non-existent except during exceptional periods of business, this common stock, unlike preferred or bond capital, would carry no interest return.

An additional 300 million would be provided by the government to retire interest-bearing bonds. The C.N.R. would in turn issue 300 million in common stock to the government which again would bear no interest due to the earnings picture of the road.

This would reduce the total debt of 1.34 billion to 284 million which would put the C.N.R. in a comparable position to the C.P.R. as far as debt structure is concerned.

The net result of uniformity in methods of depreciation and interest charges would certainly give a clearer picture as to the relative earnings of the two roads and make a comparison of operating efficiencies much easier.

# What is a Fair Day's Work?

By GEO. L. DIRKS, B.Sc.

It is argued that the average unrestricted performance of groups of qualified men who are putting forth their last effort is practically constant from year to year. This list average, because of its uniformity, can serve as a basic level for the determination of a fair day's work. The practical application of this principle is covered quite thoroughly.

Those of us who are in industrial work regardless of what phase of that work we might be in, have probably been faced with the necessity at one time or another, to answer the question: what is a day's work?

Foreman and production manager face it in their daily contact with the work force; the planning and scheduling manager, in his determination of capacities and production schedules; the time study manager in his determination of fair and equitable labour standards; the industrial relations manager in his discussions at the bargaining table; the accountant in his determination of performance budgets, and so on.

In one way or another, the question is continuously there to be answered in practical terms.

## WHAT IS A FAIR DAY'S WORK?

Considerable thought and effort is and has been given to this very important industrial enigma. Large plants, small plants, engineers, professors and others have spelled out varying interpretations or answers to this question. Presently, a large university in the Eastern United States, in co-operation with a group of engineers, is conducting research work along these lines. Labour contracts, in many cases, carry statements defining a fair day's work.

Existing definitions, however, are generally open to wide differences of interpretation. Words such as normal, standard, reasonable and average are frequently used. Words which have no precise meaning of their own. This confusing lack of clarity can, and sometimes does, lead to the kind of questions and criticisms that the definition is supposed to avoid.

It is readily apparent that if complete agreement could be had on what is a day's work, and we could define our agreement

in complete and unmistakable terms, then our industrial life would be a smoother, easier and more comfortable pursuit. Certainly we would have more time to follow other important work and our solution of problems involving fair day's work would be based on facts.

The question now before us, then, is: "can this matter be defined?" Can it be answered? Can a definition be given that is fair and applicable to all work, whether it be metal trades work, paper manufacture, weaving, mining, lumbering or any other of our many endeavours? Frankly, we do not know; time perhaps may give us the answer. In the meantime, we do know that day after day in every plant in one way or another, good, bad or indifferent, it is being answered. It has to be, and to the extent that it is being fairly answered to that extent, are our costs right, our work requirement fair, and our position competitive.

I should now like to discuss with you the basic concepts or principles that underlie this matter, and how the approach is made to determine a fair day's work.

First, let me say that this is not going to be one of those scientific discussions where complicated formulae are to be quoted and you have to burn up your slide rules to keep up with the maze of calculations. Just keep your slide rule in your pocket because what is to be said is nothing more than common sense derived from practical experience. The experience, not of one man, but many men, extending over a priod of some 30 odd years.

This experience has shown us, and as a matter of fact, to-day *we know of no known precise, positive way to determine work standards corresponding to a fair day's work except by reference to data accumulated from actual experiences covering large enough groups of people and long enough periods of time to be truly representative.* Further, that which might be considered reasonable or normal or standard performance of five minutes duration cannot be considered standard or reasonable or normal when covering an 8 or 9-hour day. Any person performing any sort of labour must be provided with rest and time for personal needs.

It is a proven fact that the average unrestricted performance of groups of qualified men who are putting forth their best effort is practically constant from year to year. This best effort

is frequently associated with some form of recognition or reward that may or may not include financial consideration. It assumes good working conditions, co-operative willingness, and no limitation, other than individual capacity. There is no appreciable difference in that rate of performance now, as compared with 30 years ago, and none is indicated in the visible future.

This best average performance, because of its uniformity, can serve as a basic level for the determination of fair day's work standards with the exception, of course, that it must be at a lower level of performance. Our fair day's work standards are at a level which is three-quarters (75%) of that best effort average performance level. This relationship is arbitrary but has been generally recognized as fair and reasonable. A different relationship between the fair day's work standard and the best effort average performances level would not change the reasoning that follows in any way.

With this as background, we can then define our fair day's work standards as three-quarters of what experience has shown can be done and maintained when representative groups of qualified men are doing their best.

To provide uniformity of concept and to facilitate comparisons, our observations and conclusions are based on an 8-hour day and all our fair day's work standards correspond to an 8-hour day, regardless of the actual length of the working day.

If we take walking as an illustration, the records show that qualified men, who are willing and able to do their best, can walk an average of 29.1 miles in an 8-hour day, day in and day out, year after year. Our fair day's work standard for walking is three-quarters of that, or 21.8 miles for an 8-hour day. Similarly, we have observed that qualified men who are willing and able to do their best can shovel 53.3 tons of salt from the floor into a truck 3½ feet high in an 8-hour day, day in and day out, year after year. Our fair day's work standard is again three-quarters of that, or 40 tons for an 8-hour day.

With this concept and definition of fair day's work standard, we then can have as many fair day's work standard bench marks as we have dependable records of average top performance, each bench being three-quarters of the established top average.

Industrial operations, however, are continuously changing, and the question is how can we establish similar fair day's work

standards on new work where previous performance records are not available? In some cases, direct comparisons can be made. For instance, as we have a standard of 21.8 miles per day for walking on the level without load, and a standard of 15.25 miles for level walking with a 50-pound load (both figures being three-quarters of the established top average performance in each case), we may deduce that the standard for level walking with a 25-pound load is between 21.8 and 15.25 miles per day. Frequently, however, such direct comparisons are not possible, and there must be other means to determine new fair day's work standards.

Anyone observing physical work that is free and unrestricted, will readily appreciate that what appears as a 'normal" pace during a short observation will be better than "normal" performance when extended over an 8-hour day. Even for a "normal" pace, some allowance must be made to provide for rest and personal needs. The fair day's work standards that are derived from past records as previously shown, include the necessary allowances for an 8-hour day. All standards so derived from past records of performance are really made up of two parts, one that is work, and the other that is rest.

In our practice, we use as "normal" pace level what people familiar with the work feel is a normal rate of accomplishment at the time of observation. Experience shows that such people's appreciation of "normal" pace is quite precise and constant. Seven motion picture showings of industrial operations to some 400 executives, plant superintendents, and industrial engineers, were made during the spring of 1949 in various parts of the country. Normal pace ratings of operations shown to the audiences were found to vary less than 3% for the average of any group of 10 men picked at random in each case. During the last 30 years, similar experiences have been verified in hundreds of cases with workers familiar with the work, but otherwise untrained in industrial engineering and time study. Such evaluation of pace will be influenced by the nature of the work and surrounding conditions. A man walking without load takes longer steps than a man walking with a heavy load and normal pace for the first will be faster, in terms of miles per hour than normal pace for the second.

The normal time corresponding to a normal pace or normal rate of accomplishment then differs from the fair day's work

standard of performance by the allowed time for rest and personal needs. This distinction between "normal" as related to pace, and "standards" as related to fair day's work performance is important. We use these words because they seem to fit the natural concept of each best and so minimize confusion. When proper performance records are available, the allowed time for rest and personal needs is simply the difference between the standard values that are derived from the past records of performance and the normal time corresponding to normal pace or normal rate of accomplishment as evaluated by people who are familiar with the work.

For walking on a level surface and without load, normal pace is generally accepted as being 3 miles per hour so that it would take but 7.27 hours to accomplish a standard 8-hour day's work at normal pace. The difference between 8 and 7.27 hours or .73 hours is the allowed time for rest and personal needs, which in this case is 10% over the normal time requirement. For level walking with a 50-lb. load, the standard is 15.25 miles for an 8-hour day but normal pace is now 2.5 miles per hour and it would take but 6.1 hours to accomplish a fair day's work at that normal pace. The difference between 8 and 6.1 hours or 1.9 hours is the allowed time for rest and personal needs, which in this case is slightly over 30%. For the salt-shoveling operation the standard is 40 tons per day while normal pace corresponds to 6.25 tons per hour and a standard 8-hour day performance would be accomplished in 6.4 hours at normal pace. The allowed time for rest and personal needs is again the difference between 8 and 6.4 or 1.6 hours, which is 25%.

These allowances are figured at the normal pace or normal rate of accomplishment level and they provide for the rest and personal time necessary to meet our definition of fair day's work standards. By repeating the same procedure with other known standard and normal pace values, it is possible to build up tables of allowances which can be used for other operations by comparing the type of motions, the weights handled, the surrounding conditions, and any other factors which affect performance.

When making time observations of new operations, the actual pace or rate of accomplishment may be higher or lower than normal and the determination of normal time involves a corresponding adjustment. As previously explained, the normal

pace level is derived from the collective judgment of people familiar with the work. Once "normal" is established for an operation, any other pace level can be determined by direct comparison. For instance, if an observation at the normal level shows 6 seconds, then a 5-second reading must be rated at 120%, while a 7.5-second reading must be rated at 80%. Observers can be trained so that their judgment matches these established scales and so provide ratings of pace which result in normal times that are on the same level as our original concept of normal pace.

The process of determining a fair day's work standard on a new operation then consists of determining the time corresponding to normal pace performance at the time of observation and adding to this normal time an allowance which is selected by comparison from the established rest allowance tables. Such fair day's work standards obviously will be on the same level as those from which the rest allowance schedules were derived.

This separate consideration of pace rating and rest allowances may appear unnecessary to those who are able to rate performance as a whole. In reality, the described practice is simpler and more practical because only exceptionally well-trained and competent observers can correctly evaluate fair day's work standards on new operations by direct observation, but nearly anyone familiar with the work can readily and correctly rate pace and select the proper allowances. This puts the whole process of determination of fair day's work standards within the easy reach of foremen and workers and this is an important advantage.

Now, in conclusion, let us briefly summarize what has been covered:—

First, it was stated that we know of no universal clear-cut, unmistakable worded definition that can be given to define a fair day's work.

Second, there is no known positive, precise way, that we know of, to determine work standards corresponding to a fair day's work, except by reference to data accumulated from actual experiences covering large enough groups of people and long enough periods of time to be truly representative.

Third, it is a known fact that the average unrestricted performance of groups of qualified men who are putting forth their

best effort is practically constant from year to year. There is no appreciable difference in that rate of performance now as compared with 30 years ago, and none is indicated in the visible future.

Fourth, since this best average performance is uniform, it serves as a basic level for the determination of fair day's work standards and we defined our fair day's work standard as: three-quarters of what experience has shown can be done and maintained when representative groups of qualified men are doing their best.

Fifth, through the use of examples of known and proven operations we determined fair day's work standard which we noted consisted of two parts work and rest, and we found again through known operations that the normal time to perform these operations was less than the actual standard and the difference between the two covered the time necessary for rest and personal needs.

From these basic facts, it was found that tables of allowances could be developed and used to compare with similar types of motion, weights handled for other operations.

Sixth, we made use of the word normal rate, which corresponded to a normal pace or normal rate of accomplishment and we said that it differs from the fair day's work standard of performance by the necessary time for rest and personal needs.

Seventh, we also noted that normal time can be determined on new operations through evaluation of accomplishment by people who are familiar with the work, and when the necessary allowance for rest and personal needs is added, the result is the fair day's work standard.

# Paralleling Systems for Affiliated Company Accounts

By W. E. BANDEL

This is a simple but effective system for handling in one office the accounts of four affiliated companies, based upon the use of a bookkeeping machine. This includes all journals, general ledgers and subsidiary ledgers.

Accounting systems for affiliate companies raise no particular problem if these systems are kept at different locations; however, when the books and records of two or more companies are kept at the same home office, certain difficulties and problems arise which require special attention. This is particularly true if the same office personnel handles the same phase of record-keeping for all the companies involved. Included here might be an accounts receivable clerk, accounts payable clerk, a general ledger bookkeeper and the head bookkeeper or company auditor. Each of these persons has his individual problems in dealing with the several companies. Daily handling of numerous invoices by a staff of this size necessitates a simplified method of receiving, disbursing, recording and filing.

In order to be specific, let us take as an example a system already in operation, involving four companies. These consist of a major company and three affiliates.

## THE BOOKS OF ORIGINAL ENTRY

It is a comparatively easy matter to align the books of original entry, since each company involved may set up the same kind of journals. To further simplify this phase of the system, however, a bookkeeping machine is used, thus making it practical to keep all the journals of one company in one loose leaf binder. The advantages here are several: 1. Compactness. With the necessity of handling the journals for all companies in one office (up to as many as 32 for four companies), the compactness made possible by a bookkeeping machine is important. 2. Ready reference. This compactness permits quick and easy reference to any of the numerous books of original entry. 3. Uniformity. Dependable uniformity and neatness are not to be overlooked as a means of easier record-keeping. In connection

## JOURNAL

SALES ☐ RECEIPTS ☐ GENERAL ☐

| Sales / Receipts | Memo | Date | Our Invoice / Folio | Accounts Receivable | | Proof | Balance | Reference | A/R Distribution | | Proof | Entry Date | Balance |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Debit | Credit | | | | Debit / A/R Credit | Credit Discount / Allowed | | | Net Bank Debit |
| | | | | | | | | | | | | | |

Sales and Receipts Journal—Fig. 1

## JOURNAL

PURCHASES ☐ DISBURSEMENTS ☐ GENERAL ☐

| Purchases / Disbursements | Memo | Date | Invoice No. / Check No. | Accounts Payable | | Proof | Balance | Reference | A/P Distribution | | Proof | Entry Date | Balance |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Credit | Debit | | | | Material / A/R Debit | Freight / Discount Taken | | | Net Bank Credit |
| | | | | | | | | | | | | | |

Purchases and Disbursements Journal—Fig. 2

## PAYROLL SUMMARY

DEPARTMENT DATE PERIOD ENDING

| | Total Hours | EARNINGS | | | DEDUCTIONS | | | | | Period Ending | Check Number | Date | PAID TO | Net Amount |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Regular | Premium | Total Earnings | F.I.C. | With-holding Tax | Advances | | | | | | | |
| | | | | | | | | | | | | | | |

Payroll Summary—Fig. 3

with this point, it may be added that the form of the sheets used in the various journals of the specific case at hand are so arranged that only three different forms are found necessary. One of these is used for recording sales and receipts (Fig. 1), another for purchases and disbursements (Fig. 2), and a third for payroll (Fig. 3), the same sheet of forms being used for all companies. 4. Accuracy and proof. Mechanical checks of a machine used in recording the original entries is probably the most important aid to the problem of keeping more than one set of books in one office.

The bookkeeping machine here simply makes the job of paralleling the systems an easier one.

## THE GENERAL LEDGERS

The general ledgers of the various companies offer the best opportunity for paralleling the systems. It is here, where the control figures are posted, that uniformity is most important. Consequently, all companies should follow the same form in setting up the general ledgers. The bookkeeping machine once again provides benefits worth mentioning.

It is necessary that each general ledger account be kept on a separate card for individual posting purposes. A card 11″x7½″ is used. These cards are filed in a specially constructed fireproof cabinet, convenient to the bookkeeper for posting. The general ledgers of all four companies, properly indexed, are kept in this same cabinet. Thus one bookkeeping machine operator is able to post to all four general ledgers without moving from her position in front of the machine.

## THE SUBSIDIARY LEDGERS

The subsidiary ledgers are set up in the same form as the general ledgers, that is on separate cards for each account. These cards, however, are slightly larger for mechanical reasons, being 11″x8½″. The cards of the accounts receivable and accounts payable ledgers of all companies are also kept in the specially constructed file cabinet, and are likewise convenient for posting.

In posting to accounts receivable subsidiaries, the sales and receipts journal sheet is used simultaneously with the detail ledger card. When the sales are being posted, the customer's statement is the original while the subsidiary ledger card is the first carbon copy and the journal sheet the second copy. The same is true in posting the receipts involving credits to the

subsidiary accounts receivables. The statement is the original, the detail card is the first copy and the journal sheet the second copy. When the sales are being posted, however, the general ledger card is also used; but here an original posting is made to the general ledger card in another position in the carriage of the machine, the journal sheet receiving the only copy. Sales are posted in detail to the general ledger because of the breakdown of sales into a number of different sales accounts. At the same time, the double posting facilitates the handling of this phase of the system. The detail of accounts receivable, however, is summarized and posted in total to the general ledger control account.

In posting to the accounts payable subsidiary cards, the purchase and disbursement journal sheet is used to receive the only carbon copy of the original postings made to the individual accounts payable cards. Here, the method of posting is the same for either the purchases or disbursements. As in the receivables, the detail of accounts payable is summarized and posted in total to the general ledger control account. The purchases, however, are summarized by account and posted in total to their respective accounts in the general ledger.

## PAYROLL RECORDS

The pay roll records are the most uniform of the books of original entry. All companies take advantage of the bookkeeping machine in making out pay roll checks. The check and attached statement of earnings and deductions is the original, while the individual employee's card is the second copy, and the pay roll summary sheet the third copy. The known advantages of this type of payroll record-keeping is amplified when one payroll clerk is handling the payroll of four companies.

## THE CHART OF ACCOUNTS

As mentioned previously, it is the general ledger that affords the best opportunity for paralleling of systems. The chart of accounts, being as it is the key to proper posting, is the mainstem of control and consequently the most important place where paralleling is used. Here is where the maximum benefit is derived from such a system.

It is posssible, as in the case presented here, that the head bookkeeper or company auditor, would have the responsibility of allocating, or approving the allocation of accounts in all com-

panies. Regardless of who does the allocating, however, if each company has a different chart of accounts, and the allocation is done by account numbers, confusion and the possibility of errors may prevail. Considerable improvement may be obtained if the systems are paralleled and the chart of accounts of the several systems contain the same account numbers for the corresponding accounts in each company. For example, the first of the asset accounts being the same in all companies, that is "Cash in Bank", the number of this account could be 101. The second account involved, let us assume, is "Cash in Bank, Payroll". This account could be then, 102. If there is no need for separate account for payroll in say two of the four companies involved, then the two companies not using this account would not use the number 102 for any other account.

The basis of such a system may well be the parent or major company. Paralleling the system of the individual companies may then be done by matching like or similar accounts. Those accounts needed in the smaller company and not in the parent company may be added at the bottom of the number groups. To illustrate:

| Account Number | Account Name | Company "A" (Parent Company) | Company "B" | Company "C" | Company "D" |
|---|---|---|---|---|---|
| No. 101 | Cash in Bank | 101 | 101 | 101 | 101 |
| No. 102 | Payroll Account | 102 | 102 | — | — |
| No. 136 | Water Well | — | — | — | 136 |
| No. 201 | Accounts Payable | 201 | 201 | 201 | 201 |
| No. 270 | Company "A" (Inter-company Account) | — | 270 | 270 | 270 |
| No. 271 | Company "B" Account | 271 | — | 271 | 271 |
| No. 272 | Company "C" Account | 272 | 272 | — | 272 |
| No. 273 | Company "D" Account | 273 | 273 | 273 | — |

Further paralleling may be followed by different account groupings within each company. For example:

| Account Number | Account Name |
|---|---|
| No. 206 | Employees Deposit for F.I.C. Tax (Liability Account) |
| No. 208 | Accrued State Unemployment Tax |
| No. 806 | Employers F.I.C. Tax (General and Administration Expense Acct.) |
| | or |
| No. 401 | Sales—Manufactured Items (Income Account) |
| No. 426 | Sales—Distributor Items (Income Account) |
| No. 480 | Sales—Used Items (Income Account) |
| No. 501 | Purchases—Manufactured Items (Purchase Account) |

| | |
|---|---|
| No. 526 | Purchases—Distributor Items (Purchase Account) |
| No. 580 | Purchases—Used Items (Purchase Account) |
| | or |
| No. 616 | Shop Travel Expense (Plant Expense Account) |
| No. 716 | Salesmen's Travel Expense (Selling Expense Account) |
| No. 816 | Administrative Travel Expense (General and Administrative Expense Account) |
| | or |
| No. 901 | Discounts Earned (Other Income) |
| No. 902 | Interest Income (Other Income) |
| No. 951 | Discounts Allowed (Other Expense) |
| No. 952 | Interest Expense (Other Expense) |

The advantages of the above grouping may readily be seen. In the first example, the expense has the same identifying digits (the last two numbers) as the accural account, each group account having its own identifying number. The second example shows the benefits of paralleling sales and purchases in a like manner, while the third example carries the idea to three different account groups. The idea may be expanded to satisfy the particular needs of the affiliated companies.

To summarize, it may be stated that all the operations in keeping more than one set of books in the same office and by the same personnel, of necessity must be streamlined and the work expedited. Anything that might minimize the possibility of errors is of great help in keeping the flow of information uniform and accurate. The posting of all the records (with the exception of payroll), of all four companies indicated above, is done by one bookkeeping machine operator. This means all journals, general ledgers and subsidiary ledgers. It is made possible to a large extent, of course, by the bookkeeping machine, but the paralleling of the systems outlined above in no small way contributes to an ease of handling the records of these four companies which would perhaps not be possible otherwise with the same office personnel.

# « STUDENT SECTION »

## GENERAL ACCOUNTING

Comments by J. D. CAMPBELL, C.A., R.I.A.

### ACCOUNTING II

**QUESTION 1 (30 marks)**

A Company Limited asks your advice concerning the following accounting problems. You are required to give a short and concise explanation (with reasons) of the treatment which you would recommend for each of the following transactions both (a) in the books of account and (b) in the year-end financial statements.

(1) Lump-sum purchase of a twenty-year lease.
(2) Commissions paid on the issue of the company's own par-value shares.
(3) Issue of company's own bonds at a discount.
(4) Lawyers' fees and expenses, including fees paid to provincial government, re incorporation of the company.
(5) Wages of own workmen engaged in rehabilitation and installation of second-hand machinery purchases.
(6) Sale of waste materials arising out of the production process.

**Solution**

1. (a) The lease would be recorded at total cost (including any incidental costs) in a long term asset account "Twenty year lease" at cost.
The cost would be allocated by journal entry as an expense of operations to the periods receiving the benefit of the expenditure.
If interest is considered in determining the payment, interest should also be considered in writing off the leasehold account.
(b) The asset would be shown on the balance sheet under the heading of fixed or long term assets at its original cost less amounts transferred to operations to date. The basis of valuation should be clearly set out on the balance sheet.
The periodic expense allocation should be set out in the appropriate section of the operating statement.
2. (a) Commissions paid on the issue of the company's own par-value shares is comparable to organization expenses and should be recorded as other assets "Commission paid on the issue of shares" or other suitable heading.
Its cost would remain on the books unchanged unless the directors decide (as a matter of policy) to write it off against accumulated earnings (earned surplus).
(b) The asset may to some degree represent an arificial asset arising out of the legal requirement that par-value shares be shown at their full amount. It should be shown on the balance

sheet under the heading of "Other assets" or "Miscellaneous assets".

No charge for the writing off of the assets would appear in the profit and loss statement since it does not represent a cost of earning the income. If the asset is written off it should appear as a charge against surplus.

3. (a) Issue of the company's own bonds at a discount should be recorded in two separate ledger accounts, a long term liability account "Bond liability" showing the amount payable at maturity and a liability valuation account "Discount on bonds" for the difference between the amount borrowed and the amount repayable at maturity date.

   The annual amortization of the bond discount represents an adjustment of the interest paid to interest cost. It will be allocated by journal entry at the end of each fiscal period during the time when the loan is outstanding.

   (b) The bond liability should be set out as a fixed or long term liability on the balance sheet including the interest rate and date of maturity.

   The unamortized balance of the bond discount may be shown either as a "miscellaneous asset" or (preferably) as a liability valuation reserve deducted from the bond liability to indicate the actual amount borrowed to date.

   The amortization of the bond discount should be shown in the operating statement as additional interest expense.

4. (a) Incorporation expenses should be recorded in a separate account headed "Incorporation expenses" or "Organization expenses".

   Its cost would remain on the books unchanged unless the directors decide (as a matter of policy) to write it off by an appropriation of accumulated earnings.

   (b) This is a long term asset whose benefit would extend over the entire (potentially perpetual) life of the corporation. Like other "intangibles" it usually is shown under the heading "other assets" or "miscellaneous assets".

No charge for the writing off of the asset would appear in the profit and loss statement since it does not represent a cost of earning the income of the period. If the asset is written off or amortized it would appear as a charge to surplus.

5. (a) Wages of own workmen in respect to second hand machinery purchased are costs laid out to place the machinery in a condition to render the necessary services and should be charged to "machinery account".

   (b) The long term asset "machinery" is shown on the balance sheet under the fixed asset grouping. From the cost figure there is deducted the asset valuation account "reserve for depreciation".

   The profit and loss will be charged periodically for the estimated cost value of the services rendered. It will appear in

the manufacturing statement (depreciation) as a cost of production.

6. (a) This item is a miscellaneous revenue item which will be recorded in a separate revenue account.

(b) This item should appear in the profit and loss statement in any one of the following ways:—

(I) deducted from the total cost of materials acquired in order to show the net cost of materials used on the manufacturing statement.

(II) if it is a derivative of the productive process itself it should be deducted from the total manufacturing costs on the manufacturing statement to show the net cost of goods manufactured.

The above item will not appear on the balance sheet.

**Comments**

The average mark obtained in the answer to this question was low which pattern applied in the case of all of the provincial institutes concerned.

The primary reason for the above situation lies in the failure of the student to read carefully the requirements of the question. This appeared most noticeable in the failure to present reasons and of realizing that the year end statements included the profit and loss as well as the balance sheet.

The following examples will serve to illustrate the above:—

(2) "In the year end financial statement this would be treated as an expense on the profit and loss statement as commissions paid and would increase the capital issue of no par value shares in the balance sheet by the same amount."

(4) "These expenses are in effect an asset of the company being incorporated and should be set up as such on the books of the company. They are frequently written off, however, over the space of a few years. The entries to record the entry on the books is a debit to organization expense and a credit to cash. The balance sheet presentation records the organization expense as an intangible asset following the fixed asset."

In the answer to sub-section (5) very few of the candidates indicated the manner in which the capital expenditure would be routed to the operations for the specific period through the medium of depreciation.

## COST ACCOUNTING

**Comments by A. V. HARRIS, C.A., R.I.A.**

**ADVANCED COST ACCOUNTING**

**PAPER I**

**QUESTION 1 (20 marks)**

The Inventory of the X Manufacturing Company, January 1, 1948, was:

Material B sufficient to make 40,000 pounds of Product A.

Material S valued at $20,000.

The following transactions occurred during the month:

Dept. 1—40,000 pounds of Product A were manufactured from Material "B" at an average cost of 10c a pound. (This process requires no labor.)

These 40,000 pounds of Product A were disposed of as follows:

60% to Dept. 2 at 10c a pound.

20% to Dept. 4 and then to Customers direct at 15c a pound.

12% defective valued at 50% of average cost.

8% on hand.

Dept. 2—All material "S" Inventory was used during the month.

Direct labor was applied at 100% of Material cost.

Manufacturing Expenses at 120% of Direct Labor Cost.

Finished Goods of this Dept. called Product B were disposed of at cost:

60% to Dept. 3.

15% to Dept. 4 (Shipping Dept.) to meet sales orders.

15% to Storeroom.

10% in process—50% completed.

Dept. 3—Direct labor, 12% of the total cost of the product brought forward from Dept. 2.

Manufacturing expense, 10% of the same cost.

Finished Goods of Dept. 3, called Product C, at the end of the month equal 80% of the product received, and were delivered to Dept. 4, and sent out to Customers.

Dept. 4—Shipping Expenses of this Dept. were 6% for Product A and 5% for Products B and C of the total cost to date.

Selling expenses, 8% of the total cost to make and ship.

Profit will be 10% of sales price.

**Required:**

Journal entries to record the above transactions through the respective departments. Calculations should be made to the *nearest dollar only.*

**Solution to Problem No. 1**

Journal Entries

X Manufacturing Company

| | Dr. | Cr. |
|---|---|---|
| (1) Work in Process Dept. 1 | 4,000 | |
| Stores | | 4,000 |
| To transfer 40,000 lbs. at average cost of 10c per lb. | | |
| (2) Work in Process Dept. 2 | 2,564 | |
| Stores (Defective Product) | 240 | |
| Cost of Sales | 854 | |

| | | | |
|---|---|---|---|
| Inventory Product A | 342 | | |
| Work in Process Dept. 1 | | | 4,000 |

| Amount | Old Cost | Defective | New Cost |
|---|---|---|---|
| 60% 24,000 lbs. @ 10c to Dept. 2 | 2,400 | 164 | 2,564 |
| 12% 4,800 lbs. defective @ 5c | 240 | — | 240 |
| 20% 8,000 lbs. @ 15c to customers | 800 | 54 | 854 |
| 8% 3,200 lbs. on hand @ 10c | 320 | 22 | 342 |
| | 3,760 | 240 | 4,000 |

| | | | |
|---|---|---|---|
| To transfer production from Dept. 1 | | | |
| (3) Work in Process Dept. 2 | 69,280 | | |
| Stores | | | 20,000 |
| Labour | | | 22,400 |
| Manufacturing Expense | | | 26,880 |
| Additional Costs in Dept. 2 | | | |
| (4) Work in Process Dept. 3 (60% of costs) | 43,106 | | |
| Cost of Sales (15% of costs) | 10,777 | | |
| Inventory Dept. 2 (15% of costs) | 10,777 | | |
| Inventory Dept. 2 on Process (10% of costs) | 7,184 | | |
| Work in Process Dept. 2 | | | 71,844 |
| Transfer production from Dept. 2 | | | |
| (5) Work in Process Dept. 3 | 9,484 | | |
| Labour (12% of costs—43,106) | | | 5,173 |
| Manufacturing Labour (10% of costs—43,106) | | | 4,311 |
| Additional costs in Dept. 3 | | | |
| (6) Cost of Sales (80% of 52,590) | 42,074 | | |
| Inventory Work in Process Dept. 3 | 10,518 | | |
| Work in Process Dept. 3 | | | 52,590 |
| Transfer production Dept. 3 | | | |
| (7) Shipping Expenses | 2,694 | | |
| Accounts Payable | | | 2,694 |

Product A. 6% of 854 = 51
B. 5% of 10,777 = 539
C. 5% of 42,074 = 2104
2,694

| | | | |
|---|---|---|---|
| Shipping Expenses payable | | | |
| (8) Selling Expenses | 4,512 | | |
| Accounts Payable | | | 4,512 |

Product A. 854+ 51= 905
B. 10,777+ 539=11,316
C. 42,074+2104=44,176
56,397 @ 8%=$4,512

| | | | |
|---|---|---|---|
| (9) Accounts Receivable | | 67,790 | |
| Sales | | | 67,790 |
| Product A=8,000 @ 15. | | | |
| B Costs | 10,777 | | |
| Shipping Expenses | 539 | | |
| Selling Expense (8%) | 905 | | |
| | 12,221 | | |
| Profit=10/9 | 1,358 | 13,579 | |
| C. Costs | 42,072 | | |
| Shipping Expense | 2,104 | | |
| Selling Expense (8%) | 3,534 | | |
| | 47,710 | | |
| Profit=10/9% | 5,301 | 53,011 | |
| | | 67,790 | |

To record Sales

**Comments on Solution: To Question 1**

The above solution is submitted as one of the more likely answers. Candidates had numerous schemes for all entries after entry No. 1, and in the examiner's marking experience there has been no question which has been as difficult to mark. Eventually three slightly different solutions, differing first at entry No. 2 formed the basis for the examiner's model solution, of which the above is one. The first problem arose in the defective work, which some ignored and many charged to manufacturing expense, and then promptly forgot about the item. The next major point of difference was in the interpretation of labor and factory overhead added in Dept. 2. Some considered this only in respect to the material added in the dept. There was, of course, material entering the Dept. as well. A number of students reduced their Work in Process inventory of Dept. 2 by 50%—thus losing 50% of their costs for this inventory.

With a proportion of students crediting Work in Process Dept. 1 with product at 15c per lb. in respect to Cost of Sales (thus ignoring costs), it is not surprising that the final cost of sales of the three products and their relevant selling prices were often far from what was considered a reasonable figure. In the examiner's opinion, the question was a good one and should have been better answered. Marks in this question were very poor.